DESCRIPTION OF PRELIMINARY SIP STATE AND FEDERAL EMISSION CONTROL CONCEPTS

Passenger Vehicles

Smog Check Improvements

Low Pressure Evaporative Test. Require low pressure evaporative system testing and repair of evaporative system leaks for all vehicles subject to Smog Check inspection.

More Stringent Cutpoints. Set more stringent Smog Check pass/fail cutpoints. Many vehicles that are repaired under Smog Check are likely to fail the next time they are tested. More stringent pass/fail cutpoints would require more cars to be repaired, and help ensure more complete and durable repairs.

Annual Inspections for Older Vehicles. Inspect older vehicles annually rather than every two years. Older vehicles tend to have greater deterioration of emission controls, and consequently, higher emissions.

Annual Inspections for High Annual Mileage Vehicles. Inspect annually, rather than every two years, vehicles that accrue very high mileage on an annual basis. High mileage vehicles tend to have greater deterioration of emission controls, and consequently, higher emissions.

Add Visible Smoke Test. As part of the Smog Check test, include a check for visible smoke to identify vehicles with excess particulate matter (PM) emissions.

Idle Testing in Enhanced Smog Check Areas. Supplement the dynamometer testing currently required in Enhanced Smog Check areas with an idle emissions test. Results from a pilot program conducted in Enhanced Smog Check areas indicate that testing emissions at idle has the potential to identify excess emissions that would not be identified through dynamometer testing alone.

Inspection of Light and Medium Duty Diesels. Include light and medium duty diesel vehicles in the Smog Check program to provide for improved maintenance and reduced emissions for this part of the fleet, and require the repair of poorly maintained or old emission systems.

Inspection of Motorcycles. Include motorcycle inspections as part of Smog Check. Studies indicate that motorcycles are subject to high rates of exhaust system tampering.

Expanded BAR Vehicle Retirement Plus Parts Replacement. Increase the number of vehicles included in the BAR scrappage program from the current 18,000 per year. Include those vehicles that come within 20 percent of the pass/fail cutpoints, as well as vehicles that are off the regular Smog Check test cycle. Additionally, provide incentives

to consumers who choose to replace emission control system parts (particularly catalytic converters) in vehicles that pass Smog Check within 20 percent of the pass/fail cut-points for either ROG or NOx.

California Phase 3 Reformulated Gasoline Modifications. Modify California's Reformulated Gasoline Program to offset ROG emissions due to the increased use of ethanol. This rulemaking activity is currently underway and is intended to fully mitigate the emission increase. These increases are incorporated in the current inventory.

Expanded Motorcycle Standards. Tighten motorcycle exhaust and evaporative emissions standards by 50 percent beginning with the 2013 model year.

Trucks

Expanded Truck Fleet Modernization Program. Accelerate the modernization of California's heavy-duty truck fleet by requiring older trucks to be replaced with newer, cleaner trucks that use advanced technology engines (trucks that meet "Tier 3" standards) in calendar years 2010-2015. Use incentive funds, where available, to assist in the replacement, repowering, or retrofit of older "captive" fleets used for short to medium distance hauling.

Additional Reductions from Out-of-State Trucks in California. Reduce emissions from out-of-state trucks that operate in California, either by rule or other enforceable mechanism such as an MOU. Trucks registered outside of California account for approximately 25 percent of statewide mileage accrued by heavy duty trucks.

Diesel Truck Emissions Tracking and Inspection Program. Reduce excess emissions from heavy duty trucks attributable to engine deterioration, poor maintenance, or tampering by expanding the Heavy Duty Vehicle Inspection Program (HDVIP). The concept is to conduct visual, under-the-hood inspections of the emission control devices, an electronic check of the truck's on-board computer, and use of remote emission sensing technology to identify and screen trucks for roadside inspections.

Goods Movement

Tugboat Cold Ironing. Require tugboats to use shore-based electrical power when idling at the port.

Auxiliary Ship Engine Hotelling. Reduce emissions from ships at berth with at-dock technologies such as cold ironing (electrical power) and other clean technologies.

Main Ship Engine Clean Fuel. Require ships to use low sulfur diesel fuel (.1%) in main engines when operating within 24 miles of shore.

Enhanced Main Ship Engine Control. Further reduce emissions from main engines through added retrofits such as selected catalytic reduction. Support efforts by ports and appropriate local entities to encourage the accelerated use of cleaner ships and rebuilt engines through other tools such as lease restrictions.

Port Truck Modernization. Retrofit or replace older heavy-duty diesel trucks that service ports. Work with port authorities to prevent adding older trucks to the fleet. Reduce emissions from in-use trucks with diesel particulate filters by 2010 and, where feasible, NOx retrofits. Phase in cleaner trucks by requiring trucks entering port service in 2007 and later years to meet model year 2003 truck standards; trucks entering port service after 2012 to meet 2007 standards; and trucks entering port service after 2015 to meet 2010 standards. Require remaining pre-2007 trucks to be retired or replaced with newer trucks by 2019.

Locomotive Engines. Beginning in 2012, replace existing line haul locomotive engines with newer, cleaner Tier 3 engines; concurrently rebuild older engines to cleaner (Tier 2.5) standards. Efforts are already underway to reduce community exposure to toxic diesel particulate matter from locomotives through reduced locomotive idling, the increased use of clean fuels, and the accelerated replacement of older "switcher" locomotives with newer, cleaner technologies.

Construction Equipment

Construction Equipment Fleet Averages/Fleet Modernization. Establish fleet average emission limits for construction fleets that would require older, dirtier engines to be replaced with engines reflecting current technologies.

Construction Equipment Idling Limitations. Adopt regulations to eliminate unnecessary idling by construction equipment.

Agricultural Equipment

Agricultural Equipment Fleet Modernization. Accelerate the modernization of the fleet of agricultural equipment used in California, removing older, dirtier equipment from service to be replaced with engines reflecting cleaner technologies.

Other Engine Exhaust and Evaporation

Accelerate Turnover of Pre-1999 Outboard/Personal Water Craft (PWC). Accelerate the retirement of pre-1999 two-stroke outboard engines.

Engines/Lower (Catalyst-Based) Exhaust Standards for Outboard/PWCs. Adopt catalyst-based standards (5 g/kW-hr) for new outboard engines.

Airport Ground Service Equipment (GSE); Increase Percent EVs/Lower Fleet Averages. Set requirements for the use of zero emission equipment and lower fleet average emissions.

Recreational Vehicle Evaporative Standards. Adopt evaporative emission standards to reduce the amount of reactive organic gases from evaporation from sources such as fuel tanks, carbon canisters, and fuel lines.

2006 Large Spark Ignited Engine Regulation. Adopt more stringent engine exhaust standards and declining fleet average to accelerate the turnover of older, higher emitting engines. (Regulation was adopted in 2006, but is not contained in the baseline.)

Consumer Products

Tighten Standards. Tighten standards or require product reformulation for consumer products categories based on another round of product surveys prior to 2015.

Pesticides

New Strategies. The California Department of Pesticide Regulation will further reduce emissions from commercial and agricultural pesticide use in California through reformulation, reduced usage, and innovative technologies and practices.